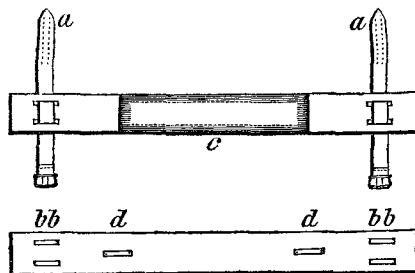


no occasion for its readjustment during three weeks, at the expiration of which it was taken off, the cure being complete in every respect.



The upper figure exhibits a front view, and the lower a back view of the splint.—*a, a*, Are two bandages with buckles attached to one end of each.—*bb, bb*, Are four morticed holes for the passage of the two bandages *a, a*.—*c*, A portion of the splint padded, to prevent its bruising the patient.—*d, d*, Two loops of leather, tacked on the back of the splint, for the passage of the bandages, where the morticed holes are too far apart for the breadth of the patient from shoulder to shoulder.

The splint, of which the accompanying figures give a representation, is two feet three inches long and three and a half inches wide.

*Mode of Application.*—The end of the splint corresponding to the uninjured side is to be pressed close to the back of the shoulder and retained so by drawing the bandage tight, and retaining it by means of the buckle. Previous to fixing the bandage, it should be passed through two

loops on a small pad, which is to be placed in the axilla. This pad is used for the purpose of preventing the cutting of the bandage. After passing the other bandage through two loops, on a large cuneiform pad, which is placed in the axilla of the injured side, it is drawn sufficiently tight and secured by the buckle. The last thing to be done is to place a handkerchief, doubled into a triangular form, in such a manner over the arm, the front and back parts of the thorax, as that it shall draw and confine the arm of the injured side close to the body, give it support, and prevent its falling down. By these means the three indications in the treatment are fulfilled.

*Charleston, September 3d, 1834.*

#### ART. IX. *On the Vis Medicatrix Naturæ*. By JOHN DICKSON, M. D.

IN reviewing the speculations and theories of our great predecessors, however fanciful and insufficient we may consider them in their extent and application, we shall seldom fail to discover an important mixture of useful truth, and careful observation. Instead therefore of ridiculing them in the gross, or giving them up to contempt and oblivion, it is often well to study the facts they involve, and sift out the truth from the mass of error with which it was mingled in consequence of their scholastic prejudices and habits of theorizing.

Few of the technical terms of the first founders of medical science are more frequently quoted to point a satiric paragraph in a lecture or essay than that which forms my present subject; few of their high-wrought hypotheses are more familiar to students in this department of knowledge than the scheme which this term presents to view. I need not therefore quote at length.

It will plainly appear, I think, on a candid examination of facts, that there was much truth, and very important truth, couched under this fanciful personification: and it is with a design to present some of these facts or general principles in a connected and impressive view to younger members of the profession that I have selected the subject. The results of these facts or principles will be seen to be practically the same as if such a personification were real and influential in the system, and this may teach us neither to despise the works of the more ancient writers, nor to neglect to examine for *ourselves* the most ingenious disquisitions of the authors that now take the lead and stamp their image on all the doctrines current in the present day.

1. The *first* great principle I shall mention, which seems to give some countenance to the theory alluded to, is the *réaction of certain vital powers against certain morbid agents*.

I am well aware that the term *réaction* is so often vaguely used, that all the ridicule directed against ancient theories may be legitimately levelled at some of those which have succeeded. Still as it is with *things*, not *words*, we have to do, I shall not despair of being understood. By reaction I mean an excitement of some vital action, (such as Goon calls instinctive,\*) *succeeding* the effect of an application of external causes. This succeeding vital action often *appears* to be little if at all correspondent in its nature with the previous actions or states of the system. We cannot always trace the connexion philosophically, but experimentally, (if it be proper to make the distinction,) we are compelled to notice the fact. It is always, however, a vital, and therefore a natural action which is thus produced, and when we have learned to expect its occurrence, we may be said to depend on a kind of *vis medicatrix naturæ*—a provision in the system for contingencies to which all the race must be exposed.

The literal meaning of the term *réaction*, though not applicable to medical subjects, may serve to illustrate the truth which it figuratively expresses. When an elastic body is compressed by a given force, so soon as that force is spent the elastic matter resumes its

\* This celebrated author attributes instinct to the mere material of vegetable as well as animal forms or *parts* whilst they are alive.

former extent and shape. So a morbid power being exhausted in producing a certain impression, there may be a nîsus or tendency to return with a force proportioned in some manner to the previous impulse, into the original or some other native state; and as the rebound of an elastic body will under certain circumstances carry it further back than the point whence it set out, (as when the force of impulsion is greater than that of gravity,) so the reâction may often exceed in violence and extent the diseased influence impressed in the first instance on the system. But I hope I shall not be thought guilty of attributing to these remarks any value beyond that which they have as similies or illustrations. They are not philosophical or scientific principles, but mere comparisons, and the use here made of them may serve to show how we may justifiably and profitably employ the fictions of our predecessors; they may often happily elucidate what they cannot prove, and assist us in that study which they ought not to supersede. Elasticity here is not *identified with*, but only *compared to* vitality.

I shall not enter at this time into an enumeration of all the re-actions capable of being produced in the system, or the agents concerned in their production. This would be a highly interesting and useful work, and it is here suggested to those who have learned more of pathology than I can profess to have done.

2. *Another* principle to be here considered is the incompatibility existing between the diseased state produced by a given agent, and the present condition, either natural or diseased, of some other part or parts of the system. It is well-known that certain actions of the system or of its organs are so associated with others that the commencement of an action of one part or organ is at once attended or followed by a particular action of another part or organ. This arrangement often gives a check to the morbid agency of powers or principles eminently destructive to life—powers that are capable of suspending some of the vital actions. The strength and health of one part or organ thus becomes the strength and health of other portions of the system.

The sympathy or association between organs or parts of the body, whence the incipient or increased action of one excites another whose action is curative of the excessive action of the first, is a matter of experience and common observation; and this is but another way of stating the same principle. And it may be added that even when the sympathy brought into action does not directly involve a curative tendency, diseased excitement may be lessened in a particular organ by being diffused or extended to others, which are intimately associated with that organ. Under this general head we may place perhaps the effect of derivatives, and the resolution of inflammation in

some circumstances. Further from the natural combination of certain actions, such as are not interrupted or weakened by the morbid cause, often start and support those which are interrupted or impaired.

3. Certain diseases, it is admitted, have a natural course which they run through and then cease. It may, for aught we know, be true of all diseases, or of any disease whatever, in a constitution sufficiently strong to endure the continuance of the disease throughout its various stadia. Some of those diseases which are known to have such a regular and natural course kill the weakly, while the strong live through them. Now the supposed *vis medicatrix* may very well be imagined to be in operation in some cases of the latter kind, where the disease existing is not known or believed to have such a natural course ending short of a fatal event.

4. Habit, a power, (shall I term it?) still so little understood or estimated, is in many cases the true *vis medicatrix naturæ*. It continues the vital actions in spite of the deteriorating effect of disease, and often seems to sustain life or the continuance of existence, where the vital actions are scarcely performed. Nothing else seems sufficient to explain the maintenance of life under the most unfavourable circumstances in certain cases; and this we are compelled by facts to receive as the sufficient reason.

5. Life itself, the unknown principle which we may just consider as the antagonist of disease in every part—life itself is deserving of this long disputed title. All the powers of the body may be with strict propriety resolved into this, i. e. life, for whatever may be the qualities of the mere matter of which the frame is composed, no purposes of animal existence can be answered by the relation between that matter as such, and the external world. Life includes every organ with properties entirely distinct from any thing it possesses, considered as a mere mass of a given chemical composition, or weight, or form. No sooner is it withdrawn than chemical actions take place, which could not otherwise be effected. And what is of more importance in this place, it is only while life is continued that any curative means we institute can produce the appropriate effect. The chemical action of a substance introduced into the stomach is not, (at least generally,) the effect we aim at when we administer it as a remedy. The chemical action might take place after the extinction of vitality in the organ to which it is applied, but its effect as a remedy would then be looked for in vain. I have purposely omitted the consideration of surgical cases in which the thing is obvious to the eyes.

From these reflections we may I think perceive the force and propriety of such language as that on which we have been animadverting. The principal evil no doubt arising from the employment of such terms

is that from their indeterminateness, the student is at a loss how to apply them, and may even at length almost forget that he is dealing in mere personification, while he brings in as real agents to cut the knot of every difficulty he meets with, those qualities which have no existence by themselves but must inhere in something tangible and evident.

To show the necessity of caution in this respect, and to assist the student in exercising it, are the objects in view in these brief paragraphs.

ART. X. *Observations on the Treatment of Gun-shot Wounds, Ulcers, &c.* By PAUL F. EVE, M. D. Professor of Surgery in the Medical College of Georgia.

A PRINCIPAL object of this communication is to lay particular stress upon the importance of dressing wounds and recent ulcers with the chlorides of lime and soda. The most intelligent surgeons now depend upon fine lint kept wet with cold water, leeches, sometimes emollient poultices, perfect repose, depletion, &c. in the treatment of gun-shot wounds, which, together with the chlorides, will be found superior to any plan yet proposed. This treatment combines the advantages of the materials required being easily obtained in almost every situation; of a most efficacious disinfecting agent which is of much importance in camps and hospitals being employed; of being decidedly the most agreeable of all other methods of treatment to the feelings of the patient; and lastly, of greatly accelerating the healing process.

The manner of using the chlorides is in solution in water. As a general application to wounds and recent ulcers, an ounce of dry chloride of lime to two pints of water, or two drachms of the chloride of soda, (of Labarraque,) to a pint of water, is found to be the best proportion. Confessedly, no agents of the *Materia Medica* possess greater disinfecting properties; but however satisfactory the chemical operation in this process may be understood, the same facility or perspicuity of explanation is not apparent, by which they promote healthy granulation and cicatrization. While speculation is purposely avoided, it may be inquired, does not the very union of the chlorine gas of the chloride with the hydrogen of the watery particles or gas secreted by the surface of a wound or ulcer, produce an alteration at once destructive of putrefaction and irritating matter? and besides the result of which combination, we have the alka-